

Exhibit 5 - part 1

to

DECLARATION OF ASHIMA AGGARWAL

in support of

DEFENDANTS' MOTION FOR SUMMARY JUDGMENT

WILEY
VISUALIZING™



NATIONAL
GEOGRAPHIC

VISUALIZING

EARTH SCIENCE



ZEEYA MERALI

BRIAN J. SKINNER

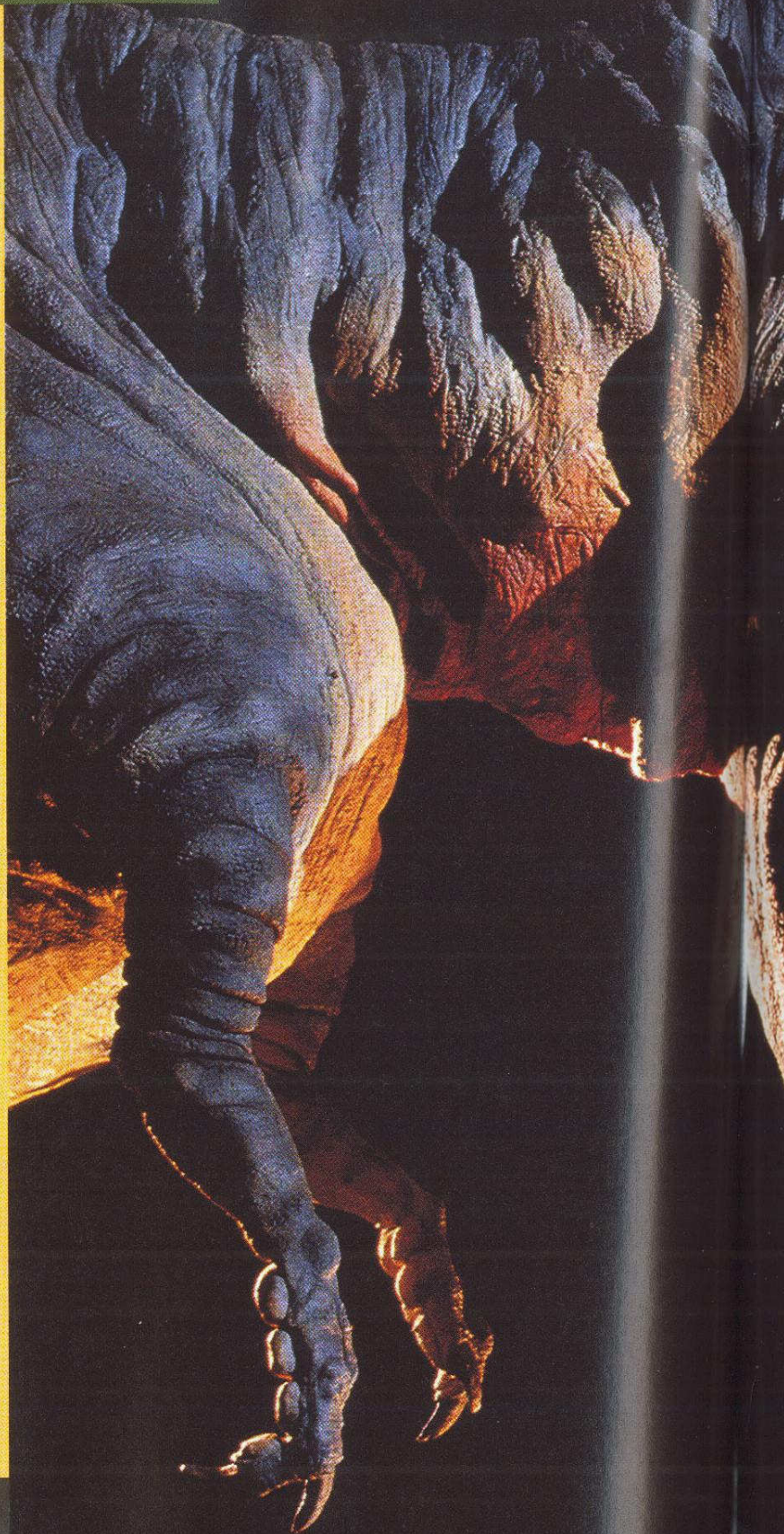
A Brief History of Life on Earth

11

The history and diversity of life, from this ferocious *Tyrannosaurus rex* (on exhibit at the American Museum of Natural History) to the humblest microbe, is very much a part of the planet's history. Throughout this book, you will find numerous examples of interactions between the biosphere and other parts of the Earth system. Plants and microorganisms accelerate the mechanical weathering of rocks and formation of soil. The skeletons of plankton sink to the bottom of the sea, where they form sediments that eventually turn into limestone. Land plants form coal, and animals leave fossils that paleontologists use to reconstruct the history of life. Biologic processes, including the transpiration of plants and respiration of animals, regulate the very air that we breathe.

This interaction also works in the opposite direction: The Earth system affects the course of life on this planet. Earth's atmosphere and hydrosphere provided a habitat in which life could develop and prosper. The forms that life takes are governed by the need to survive in a particular environment—the scalding waters around a mid-ocean rift, the arid land of a desert, the humid climate of a tropical rainforest, all of which result from natural processes.

The study of Earth science is thus inseparable from the study of life on Earth. In this chapter, we trace the story of life from its beginnings. We examine in greater detail how life has been affected by its interactions with the atmosphere, hydrosphere, and lithosphere and how, in turn, life has shaped the Earth system.



 NATIONAL
GEOGRAPHIC